

**UNITED STATES DEPARTMENT OF COMMERCE****Patent and Trademark Office**Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/004.897 01/09/98 BURRIS

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IM52/0520

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EXAMINER

LAWRENCE JR.F

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 05/20/99

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

<b>Office Action Summary</b>	Application No. <b>09/004,897</b>	Applicant(s) <b>William A. Burris</b>
	Examiner <b>Frank Lawrence</b>	Group Art Unit <b>1724</b>

Responsive to communication(s) filed on Apr 29, 1999

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

#### Disposition of Claims

Claim(s) 1-58 is/are pending in the application.

Of the above, claim(s) 21-38 and 58 is/are withdrawn from consideration.

Claim(s) \_\_\_\_\_ is/are allowed.

Claim(s) 1-20 and 39-57 is/are rejected.

Claim(s) \_\_\_\_\_ is/are objected to.

Claims 1-58 are subject to restriction or election requirement.

#### Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All  Some\*  None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

#### Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## **DETAILED ACTION**

### ***Election/Restriction***

1. Applicant's election with traverse of Group II, claims 1-20 and 39-58 in Paper No. 4 is acknowledged. The traversal is on the ground(s) that the apparatus and method claims are not distinguishable because they are specifically limited to batch operation. This is not found persuasive because the apparatus as claimed can still be used to practice a continuous flow operation despite being limited to batch operation in the claims.

The requirement is still deemed proper and is therefore made FINAL.

2. Newly submitted claim 58 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 58 is drawn towards a method of use.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 58 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

3. This application contains claims 21-38 and 58 drawn to an invention nonelected with traverse in Paper No. 4. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

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***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 5 and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Barnes ('016; figure 1; col. 2, line 32 to col. 3, line 39).

Barnes ('016) teaches a batch liquid purifier comprising an upflow chamber (11) with an inlet (33) and outlet (16), an ozone generator (32), a venturi/constriction injector (32), a pump, and a filter. The length of the passageway (L) after the ozone injector is disclosed to be long enough to provide sufficient mixing of ozone into the liquid and is located both before and after the upflow chamber due to recycling of the liquid. The mixers of claims 8-10 are met by the venturi and pipe length (L) of Barnes. How the generator operates is a functional limitation which is not patentably distinct in the apparatus claims.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 11-13, 17-19, 39, 43-50 and 54-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burris ('993; entire document) in view of Barnes ('016).

Burris ('993) discloses a batch liquid purifier comprising a pumping system which can be a venturi injector, pump with inline static mixer downstream, or an upflow column for mixing ozone into water. There is an air pump for supplying gas for introduction into the liquid and could be configured to empty the liquid passageway. Valves, the air pump and pumping system (liquid pump) are controlled for their protection in response to sensed conditions. Also disclosed is a gas/liquid separator downstream of the pumping system and that a drying agent (desiccant) is used at the inlet of the controlled ozone generator to provide dried air. The instant claims differ from the disclosure of Burris in that mixers are located upstream and downstream of the upflow chamber.

Barnes ('016) discloses a batch purifier comprising an upflow ozone bubble chamber with mixers upstream and downstream of it. The mixer is a venturi injector and length of pipe and mixes liquid both before and after the upflow chamber due to a recycle line. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the static mixer of Burris to include an additional mixer and place them upstream and downstream of an upflow chamber in order to provide more efficient ozone/liquid contact for better water purification. Those claims drawn towards when the ozone generator operates and when the outlet is closed are functional limitations which are not patentably distinct in the apparatus claims.

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8. Claims 2, 3, 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over the primary references as applied to claims 1 and 39 above, and further in view of Hinkle, II ('831; col. 3, lines 24-34).

The primary references disclose all of the limitations of the claims as discussed above except that the upflow chamber comprises a light transmitting wall with an illuminator. Hinkle, II ('831) discloses a liquid treatment apparatus having a tank with transparent windows and an illuminator for observing conditions within the tank. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the apparatus of the instant specification to include a light transmitting wall with an illuminator in order to provide means to observe gas bubbles within the upflow chamber so that a user knows whether the device is operating.

9. Claims 4 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over the primary and secondary references as applied to claims 3 and 41 in paragraph 8 above, and further in view of Domnick ('484; col. 4, line 57 to col. 5, line 5).

The primary and secondary references disclose all of the limitations of the claims as discussed in paragraph 8 above except that the light transmitting wall is colored. Domnick ('484) discloses a water treating device comprising a wall which can be tinted to contrast with colored items inside. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the apparatus of the instant invention to include a colored light transmitting wall in order to provide a means to enhance visibility of the bubbles rising inside to a user.

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10. Claims 6 and 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes ('016) in view of Uban et al. ('488; col. 5, lines 8-55).

Barnes ('016) discloses all of the limitations of the claims except that the filter in the system has an indicator to show a need for changing it. Uban et al. ('488) discloses a ozone water purifying system comprising an upflow chamber for contact and a filter downstream having an indicator that detects when the filter becomes clogged and starts a filter cleaning cycle. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the apparatus of Barnes to include an indicator to detect when a filter needs to be changed in order to provide an automatic means for monitoring the filter so that it does not have to be manually inspected by a user.

11. Claims 14-16, 20, 51-53 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over the primary references as applied to claims 1 and 39 in paragraph 7 above, and further in view of Norris ('261; figures 1 and 3).

The primary references disclose all of the limitations of the claims as discussed in paragraph 7 above except that the dispenser includes a movable spout which can be extended beyond the purifier housing which activates the system, and that the container is detachable. Norris ('261) discloses a liquid dispenser having a detachable container and a movable spout extending from the unit and activating when extended further. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the apparatus of the instant specification to include a removable container in order to provide one that can be cleaned in

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another location and to use a movable spout which extends from the purifier and activates when extended in order to provide a means for easily dispensing liquid contents to a manual user without interference from the unit housing. The functional limitations of how the spout operation affects the purifier operation are not patentably distinct in the apparatus claims.

*Conclusion*

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The reference to Brague ('583; figure 2) discloses a movable dispenser spout which extends from a housing.

The reference to Matsumoto et al. ('908; figure) discloses a purifying liquid dispenser having a removable container and spouts extending from a housing.

The reference to Japanese abstract (JP 3-056,195 A) discloses a water purifier comprising an ozone generator which turns on and off automatically in response to fluid flow.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank M. Lawrence whose telephone number is (703) 305-0585. The examiner can normally be reached on Monday through Thursday from 8:00 AM to 4:30 PM, and on alternate Fridays from 8:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Jay Woo, can be reached on (703) 305-3793. The fax number for official

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after final faxes for this Group is (703) 305-3599, for all other official faxes the number is (703) 305-7718, and for unofficial faxes the number is (703) 305-3602.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0651.

FL *JL*

May 17, 1999

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